

Amendments to the Specification

Please replace the paragraph beginning at page 12, line 1, which starts with "(2) Grow a thermally deposited", with the following amended paragraph:

(2) Grow a thermally deposited P+ diffusion oxide ~~325~~, preferably SiO₂, on the P+ substrate 301 and pattern the oxide in the shape of mask A 600, to open two windows 601 and 602 for N+ diffusion. The larger the area of the two windows 601 and 602 in mask A 600, the lower is the resistance of the two avalanche diodes 103 and 105.

Please replace the paragraph beginning at page 12, line 18, which starts with "(6) Grow a P+ diffusion", with the following amended paragraph:

(6) Grow a P+ diffusion oxide 325 on the N-EPI layer 305 and pattern the oxide in the shape of mask B 700 for P+ diffusion.

Please replace the paragraph beginning at page 13, line 20, which starts with "(11) Apply an aluminum", with the following amended paragraph:

(11) Apply an aluminum metalization layer ~~327~~ to the entire top surface of the die 201 distal from the substrate surface 302 to provide a first external electrical contact to the second surface 314 of the P+ second diffused region 313, and a second external electrical contact to the third surface 316 of the P+ third diffused region 315, where exposed by windows 1001-1004 of mask E 1000.

Please replace the paragraph beginning at page 13, line 25, which starts with "(12) Using mask F 1100", with the following amended paragraph:

(12) Using mask F 1100, remove the aluminum metalization layer ~~327~~ except for portions 1101 and 1102 to form first and second aluminum regions 219 and 220 (see FIG. 2) at each end of the die 201, which electrically couple the anode of the first avalanche diode 103 to the anode of the second ~~the~~ rectifier diode 106 and the anode of the first rectifier diode 104 to the anode of the second ~~the~~ avalanche diode 105, respectively. The aluminum region 219 also electrically couples the external electrical contact at the second surface 314 to solder bump pads 211 and 214. The aluminum region 220 also electrically couples the external electrical contact at the third surface 316 to solder bump pads 212 and 213.

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Please replace the paragraph beginning at page 14, line 8, which starts with "(14) Apply mask G 1200", with the following amended paragraph:

(14) Apply mask G 1200, and pattern the CVD SiO₂ layer 333 such that two windows 1201-1202 and 1203-1204 are opened in the CVD SiO₂ layer to the aluminum metalization layer ~~327~~ at each end of the die 201.

Please delete the one-line paragraph beginning on page 15, line 33, (within the LIST OF REFERENCE NUMERALS), which consists of the words: "327 Aluminum Metalization Layer".